

# **ABG** AIRDRAULIC BIRCO GROUP PTY LTD

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# **VAF-12E**

# Ventilation Manual





Congratulations on your purchase of a new VAF-12E fan by Dry Air Technology, Inc. This Vane Axial Fan has been designed to offer you the reliability, durability and portability you need for the toughest job.

Dry Air Technology designs, engineers, and manufactures lightweight air movers, ventilators, and dehumidifiers. In 1993, Dry Air brought the first portable ventilator made of high-density polyethylene, the VAF-3000, to the marine industry. It has been a technological breakthrough in ventilation ever since. Available in a variety of sizes with positive and negative airflow, these portable ventilators are dependable and perform well under the toughest conditions.

Your new unit was designed to provide the maximum performance. Please read this owner's manual carefully to insure that you get the most from your unit.

#### SAFETY INFORMATION

#### CAUTION!

Unit operates on alternating current: 110/120 volt, 60 Hz or 220/240 volt, 50 Hz

Do not operate your VAF series fan with a cut or frayed power cord. Do not unplug your unit by pulling on its cord. Grasp the plug firmly and pull it out of the wall socket or power receptacle. The plug has a safety ground pin installed that must not be removed. If the pin is damaged or missing, have the power cord replaced at once. Visually inspect the power cord before each use. Ignoring these safety precautions may result in a fire or an electric shock.

Never operate electrical equipment in standing water. There is a shock hazard.

Never drop the unit. Sudden and severe impact may result in damage to internal components.

Your VAF fan should never be operated with the safety grills removed. Personal injury may result.

Drop cloths or other loose fabrics can be drawn against the unit thereby restricting airflow. This condition may cause the unit to overheat. Keep the air inlet clear of any obstructions.

Save the shipping carton in case your VAF fan must be returned for repair.

This unit should never be serviced or cleaned while it is plugged into a live electrical power source.

WARNING: Ignoring these safety precautions may result in serious personal injury.

Vane Axial Fan

## VAF-12E

#### **OPERATING INSTRUCTIONS**

Please inspect your unit upon receipt for any freight damages. Be sure to keep all original packaging. Original packaging will help protect unit from freight damage upon return.

If you discover any damages during inspection, please contact Dry Air Technology.

The unit as packaged is ready to be put into service. If you have a 220v model, attach the appropriate plug for your region.

Inspect the unit completely for any shipping damage. Place the unit on the ground or on a very stable platform.

Plug the unit into a grounded alternating current circuit and switch the unit on.

#### MAINTENANCE

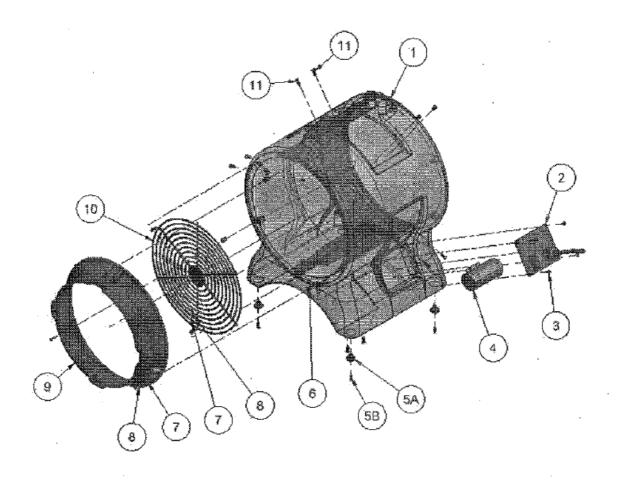
#### Warning

Disconnect the unit from the power supply before cleaning or servicing.

Before each use the unit should be inspected for damage, clogged inlet or outlet, or any excess buildup of foreign material. When the unit is first turned on, check for excessive vibration, which could indicate a major problem. If the unit vibrates, have a service technician inspect the unit for the problem.

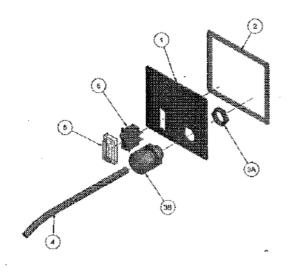
#### **SPECIFICATIONS**

VOLTAGE FREQUENCY MOTOR CURRENT RPM CFM MAX SP HEIGHT WIDTH LENGTH WEIGHT	110/120V 60 HZ 1 HP 7 AMPS 3325 2200 3" 20 1/4" 14.8" 18.7" 34 lbs	220/240V 50HZ 1 HP 4.9 AMPS 2750 2200 2.5" 20 1/4" 14.8" 18.7" 15.4 kg
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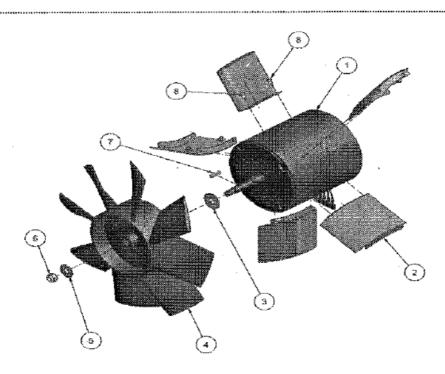
### PARTS LIST

Item	Qty	Part Number	Description
1	1	AF-00C-P4A20555	12" Shell
2	1	AF-03E-M3A10365	Switch Plate Assembly
3	4	CF-00F-S2AN0003	#8x1/2" Phil Pan T/S 18-8 SS
4	1	AF-00E-PNA10227	Capacitor, 3770 VAC/40UF
5A	4	GN-00C-RNN10006	Tempest/Axial Foot, Foot
5B	4	GN-00C-RNN10006	Tempest/Axial Foot, Pin
6	12	AF-00F-R4B10029	M35 Metric Well Nut
7	12	FL-00F-S5AN0025	#6 Flat Washer, 18-8, SS
8	12	AF-00F-S3B10010	M-3 .5Px20MM, Hex Head Bolt
9	2	AF-00C-P6A10353	Duct Ring, VAF 12E
10	2	AF-00C-M5A10354	Grill, VAF 12E
11	10	GN-00F-A1A10203	Aluminum Rivets



### PARTS LIST

Item_	Qty	Part Number	Description
1	1	AF-00C-M3A10359	Switch Plate, VAF
			12E/16R
2	1	AF-00C-R6A10360	Gasket, Switch Plate,
			VAF 12/16
3A	1	AF-00E-PNN10015	Strain Relief-LQ TIGHT
3B	1	AF-00E-PNN10015	Strain Relief-LQ TIGHT
35	<u>'</u>	A1 -00E-1 1414 100 15	Strain Relief-EQ TIOTTI
4	1	CF-00E-N4A10004	Power cord 20' 16/3
			SJT-WA CEE
5	1	GN-00C-	Cover, Rocker Switch
		R3MM0335	
6	1	GN-00E-P3B10218	ON/OFF Rocker Switch,
		1	BLK



### PARTS LIST

Item	Qty	Part Number	Description
1 .	1	AF-00M-N1A1-203	1HP 110V 48 Frame Motor
2	5	AF-00C-M2A10361	Vane Motor Mount
3	1	AF-00F-S5BN0204	1/16 Blade Backing Washer
4	1	AF-00M-P4A10238	12" Fan Blade, VAF 12E
5	1	AF-00F-S5AN0007	3/8 Flat Washer 18-8 SS
6	1	AF-00F-S4AN0008	3/8-16 Nylock Nut L/N 18-8 ST
7	1	AF-00C-M6NN0378	Key 4mm x 19mm
8	10	AF-00F-S2AN0041	8-32 x 1/4" HWH Vane to Motor

# **Trouble Shooting**

Problem	Cause	Solution
Unit will not run.	1. No power to unit.	Plug unit in. Check circuit
		breaker.
	2. Switch not on.	Place in "ON" position.
	Switch is faulty.	Replace switch.
	<ol><li>Faulty/broken cord or motor wire.</li></ol>	4. Perform continuity check, using
		volt/amp meter. Repair/replace
		faulty broken wire.
Unit runs but fan	Unit has been severely jolted	Remove motor and replace
makes loud scraping	causing fan to rub against housing.	damaged motor mounts.
noise.	Unit has been severely jolted	Replace fan blade.
	causing housing to deform.	
Unit runs but vibrates	Severe jolt has bent motor shaft	Remove and replace motor.
excessively.	causing unit to be out of balance.	
•	2. Fan blade damaged.	Replace blade if necessary.
	3. Dirt build up on one side of	3. Clean fan blade.
	fan blade.	4.5
Unit runs but fan does	Fan is jammed against housing.	1. Remove motor and replace
not turn.		damaged motor mounts. Replace
-	2 Congoiter wire has broken/some	fan blade if necessary.
	2.Capacitor wire has broken/come	2.Repair/replace wires/capacitor
	loose, capacitor has failed.  3. Housing has been damaged such	as necessary.  3. Replace housing/unit as
	that it presses on fan blade.	necessary.
Unit runs briefly, then	Motor bearings are failing or	Replace motor.
shuts off on overload.	motor has developed an internal	1. Nopiace motor.
Silata on on ovenoad.	electrical fault.	
	2. Intake grill and/or exhaust grill	2. Remove obstruction.
	is obstructed.	3.Reduce duct length to
	3. Excessive duct length.	recommended maximum.